AMENDMENT

IN THE SPECIFICATION:

Please amend original paragraph 31 as follows:

[0031] The first block 5 is a metallic slab disposed on the bottom surface 49 of the box portion 3a. The heat sink 13 and the driver 17, arranged along a reference axis 51 in FIG. 2, are disposed on the first block 5. The heat sink 13 is an insulator such as aluminum nitride (AlN), which dissipates heat generated by the laser diode 15 to the first block 5. Other materials are applicable to the heat sink 13, for example, a titanate of barium (Ba) or lead (Pb), or a niobate of potassium (K), lithium (Li), strontium (Sr) or barium (Ba). The driver 17 drives the laser diode 15 by supplying modulation current and bias current thereto. On the heat sink 13 disposes the laser diode 15 such that a light-emitting ~~facet 15~~ facet 15a thereof faces to the front side.

Please amend original paragraph 32 as follows:

[0032] FIG. 4 expands a portion of the heat sink 13 and the laser diode 15 shown in FIG. 3. The heat sink 13 provides a conductive layer 14 on the top surface thereof, which is a gold (Au) film formed by ~~the~~ evaporation. Since the heat sink is insulating, an arrangement of the first block 5, the heat sink 13 and the conductive layer 14 emulate a capacitor 16. The capacitance of the capacitor 16 is preferably greater than 50 pF by taking a resonant frequency of the laser diode 15. The arrangement of FIG. 4, the heat sink 13 and the conductive layer 14 have 0.5 mm square, and a thickness thereof of 0.3 mm, results ~~on the~~ in capacitance of about 67 pF, where the dielectric constant of aluminumnitride is about 9.1. Accordingly, an effective capacitance can be attained with ~~a~~ space enough to dispose the laser diode 15 on the heat sink 13.

Please amend original paragraph 37 as follows:

[0037] The light-transmitting module 1 further includes a sub-mount 19 and a photodiode 21 on the substrate 7. The substrate 7 is mounted on the first block 5 and has a shape so as to surround at behind and aside the driver 7. The sub-mount 19 is mounted on the substrate 7 so as to extend along a direction across the reference axis 51. The photodiode 21 is put on the front surface of the sub-mount 19 and optically coupled with a light-reflecting facet 15b opposite to the light-

emitting facet 15a.

Please amend original paragraph 39 as follows:

[0039] A window sealed with a hermetic glass 23 is formed at a point coupled to the cylindrical portion 3b in the front wall of the box portion 3a. In the cylindrical portion 3b is provided a bore coupled with the box portion 3a via the window. The bore transmits light from the laser diode to an optical fiber 33, which is not shown in the drawings. Further, the cylindrical portion 3b provides another lens holder 27, which secures a second lens 27a, in a tip portion thereof. Between another lens holder 27 and the cylindrical portion 3b can provide an optical isolator 25, which prevents light reflected by the optical fiber 33 from returning to the laser diode 15.

Please amend original paragraph 49 as follows:

[0049] In FIG. 7A, the conductive layer 14 of the heat sink 13 connected to the wiring pattern 35e via the bonding wire 39. A fine and long conductor such as bonding wire functions as an inductor. Therefore, as shown in FIG. 8A, the bonding wire 39 operates as an inductor L11. The wiring pattern 35e is connected to the bias V11 via the lead ~~terminal 35e~~ terminal 35b. On the other hand, the heat sink 13 is in contact with the first block 5, which is grounded. The bias voltage to the laser diode 15 is ~~stablilized~~ stabilized with the capacitance 16 formed by ~~the firs~~ the first block 5, the heat sink 13 and the conductive layer 14. The cathode electrode 157 of the laser diode is connected to the driver 17 via the bonding ~~wire 42~~ wire 41, which also operates as an inductor L12. Thus, not only the bias voltage, for example +5V, is supplied to but also the driving current Id is applied to the cathode electrode 157 of the laser diode 15 via the bonding wire 41.

Please amend paragraph as follows:

[0050] In another embodiment of FIG. 7B and FIG. 8B, the conductive ~~layer 53a~~ layer 58a of the heat sink 58 is connected to the upper terminal of the ~~die-capacitor 77~~ die-capacitor 88 via the bonding wire 40a. The upper terminal is connected to the wiring ~~pattern 35d~~ pattern 35e via the bonding wire 40b. Each bonding wire 40a and 40b operates as an inductance L21 and L22,

respectively. The wiring ~~pattern 35d~~ pattern 35e is connected to the bias voltage V11. The lower terminal of the die-capacitor 88 is grounded via the first block 5. The heat sink 58 of this embodiment is made of aluminum nitride (AlN). The cathode electrode 157 of the laser diode 15 is, similar to the case of FIG. 8A, connected to the driver 17 via the bonding ~~wire 42~~ wire 41. Thus, the bias voltage, for example of +5 V, is supplied to the anode electrode 151 via the wiring pattern 35e, the bonding wires 40a and 40b, and the conductive layer 58a. Simultaneously, the driving current Id is applied to the cathode electrode 157 from the driver 17.

Please amend paragraph as follows:

[0051] FIG. 9A and FIG. 9B show circuit diagrams of the configuration shown in FIG. 8A and FIG. 8B, respectively. In FIG. 9, the driver 17 ~~has an~~ has a signal source 171 ~~and an~~ with an output capacitance C17 between the node N1 and the node N2. The node N2 is grounded. The bonding wire having the parasitic inductance L12 is connected between the node N1 and the cathode electrode 157 of the laser diode 15. The equivalent circuit of the laser diode 15 has a junction capacitance C15 and a serially connected voltage source V15 and a resistance R15. The anode electrode 151 of the laser diode 15 is connected to the node N4.

Please amend paragraph as follows:

[0060] The light-emitting module 2 has a lead frame 75, a heat sink 61, a sub-mount 63, a driver 65, a plurality of lead terminals from 79a to 79d, and an optical fiber 71. The sub-mount 63 mounts the driver 65 ~~thereof~~ thereon. The optical fiber 71 is secured by a ~~ferrule 77~~ ferrule 73, which is also mounted on the heat sink 61. A resin 77 molds the light-emitting module 2.

Please amend paragraph as follows:

[0065] FIG. 14 shows an outside appearance of the light-emitting module 2. The module 2 shown in FIG. 12 is fully molded with resin 77 with a primary portion 77d and a head portion 77e. The primary portion 77d disposes lead terminals, from ~~79a and~~ 79b to 79d in both sides thereof, 77a and 77b. On the front surface 77c of the head portion 77e is projected the ferrule 73, and the both sides, 77f and 77g, of the head portion 77e ~~provides~~ provide a fitting mechanism

77h and 77i to mate the module 2 with the optical connector.

Please amend paragraph as follows:

[0066] The light-emitting module thus configured operates as follows. One of the lead terminals 79b, which is connected to the conductive layer 61c via the bonding wire 83, shown in FIG. 12, is supplied the bias voltage. Since the conductive layer 61c functions as one electrode of the capacitor 70, the supplied bias voltage can be stabilized by the capacitor 70. The driving signal is also supplied from the outside via the lead terminal 79a or 79b. The driver 65 provides the driving current, which is the bias voltage modulated by the driving signal, to the laser diode 67, whereby the laser diode 67 generates coherent light corresponding to the driving signal. The coherent light thus generated is emitted from the light-emitting facet 67a and enters the optical fiber 71.

Please amend paragraph as follows:

[0067] In the module 2, since the laser diode 67, shown in FIG. 12, is mounted on the capacitor 70, similar to the module 1 in the first embodiment, a bonding wire connecting the laser diode to the capacitor can be omitted, thereby enhancing the high frequency performance of the module by eliminating the parasitic inductance due to the bonding wire.